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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,370	02/10/2004	Alazel Acheson	MSFT-3026 / 307009.01	3201

41505 7590 11/24/2010

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EXAMINER	
PANNALA, SATHYANARAYA R	

ART UNIT	PAPER NUMBER
2164	

NOTIFICATION DATE	DELIVERY MODE
11/24/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficemonitor@woodcock.com

Office Action Summary	Application No.	Applicant(s)	
	10/776,370	ACHESON ET AL.	
	Examiner	Art Unit	
	Sathyanarayan Pannala	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-10,16-20,26-31,33,35-39,41-45,47 and 48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-10,16-20,26-31,33,35-39,41-45,47 and 48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/31/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/24/2010 has been entered.

Response to Amendment

2. Applicant's Amendment filed on 9/24/2010 has been entered including amended claims 31, 35-38, 41-43, 47-48 and no canceled or added claims. In this Office Action, claims 6-10, 16-20, 26-31, 33, 35-39, 41-45 and 47-48 are pending.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 8/31/2009 are in compliance with the provisions of 37 CFR 1.97 and have been considered by the examiner.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 6-10, 16-20, 26-31, 35-38, 41-44, 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srivastava (US Patent 6,735,598) hereinafter Srivastava, in view of Stawikowski (US Patent 7,159,007) hereinafter Stawikowski, and in view of Pandya (US Patent 7,376,755) hereinafter Pandya.

6. As per independent claims 31, 37 and 43, Srivastava teaches the invention attains its object by providing built-in classes in the relational database system and permitting users to define subclasses of the built-in classes for dealing with different kinds of data sources and differently-formatted data within the data sources (col. 3, line 66 to col. 4, line 3). Srivastava teaches the claimed, executing instructions from a

memory in the database server (Fig. 11, col. 3, lines 20-26, the source code is compiled by a compiler in the database system to produce executable code and the compiler then modifies the table so that it relates the class and subclass specified in the package's name to the location of the code in the database system).

Srivastava teaches analogous to the claimed, writing said application code as .NET managed code (Fig. 6, col. 10, lines 10-15, template 601 is written in the PL/SQL programming language. It may, however, be written in any language which the database system is able to compile). Srivastava does not explicitly teach .NET code. However, Stawikowski teaches the claimed, invoking .NET managed code (col. 1, lines 62-63 and col. 2, lines 6-12, an applications server (J2EE, NET, etc.), a database management system (DBMS) server, the remote equipment comprises at least one processing unit, is capable of connecting to at least one item of automation equipment through an IP network and executing a program or a set of computer programs); Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Stawikowski's teachings would have allowed Srivastava's method to automation equipment may include a WEB server to exchange data related to the automation equipment with a remote WEB client (col. 1, lines 39-42).

Srivastava teaches the claimed, context class (col. 3, lines 66 to col. 4, line 3, built-in classes in the relational database system and permitting **users to define** subclasses of the **built-in classes for dealing with different kinds of data sources** and differently-formatted data within the data sources.) Srivastava and Stawikowski do

not teach client's connection, triggers, transaction context. However, Pandya teaches the claimed, invoking an invocation context in the database server, wherein the invocation context is based on at least a context class, wherein the context class includes information comprising connection context of a client, a command context of the client, a transaction context of the client, a pipe context of the client and a trigger context of the client (Fig. 34, col. 33, line 55 to col. 34, line 18). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Pandya's teachings would have allowed Srivastava's method to automation equipment may include a WEB server to exchange data related to the automation equipment with a remote WEB client (col. 1, lines 39-42).

Srivastava teaches the claimed, exposing the invocation context class to the database server through the utilization of an in process provider (Fig. 11, col. 11, lines 12-16, the database system of the preferred embodiment dynamically links the code for a method belonging to an ORDSource subclass at the time that code being executed by the database system invokes the method). Srivastava teaches the claimed, the in-process provider keeps track of unmanaged data that is referenced from a managed space and prevents access of the unmanaged data outside a managed execution frame (Fig. 11, col. 11, lines 33-39, the database system of the preferred embodiment maintains a cache in the main memory of the computer system upon which the database system is running, and once code in BLOB 1127 has been invoked, BLOB 1127 is copied to the cache, where it remains as long as it is being invoked with

sufficient frequency that the cache management system does not remove it from the cache.);

Srivastava teaches the claimed, executing the code in the database server based on the invocation context, storing information for the context class in said memory (Fig. 6, col. 3, lines 11-15, the executable code for the method is stored in storage controlled by the database system and is located by means of a table in the database system's schema which relates the object's class and subclass to the location of the executable code).

Srivastava teaches the claimed, separating the managed code into immutable part and mutable (=modifiable) part (col. 4, lines 18-26, to add a user-defined subclass, the user creates a package which contains **source code** for at least some of the subclass's methods. The package's name specifies the class and subclass. The source code is compiled by a compiler in the database system to produce executable code and the compiler then **modifies** the table so that it relates the class and subclass specified in the package's name to the location of the code in the database system.)

7. As per dependent claims 36, 42, 48, Srivastava teaches the claimed, the in-process provider supports more than one pending executing command for a client connection (Fig. 11, col. 11, lines 3-11, the database system of the preferred embodiment also has provisions for executing compiled code contained in files external to the database system; thus, a package can also be implemented using any

programming language for which there is a compiler on the computer system upon which the database system is executing).

8. As per dependent claims 35, 41, 47, Srivastava teaches the claimed, invoking code in the database server is a result of a client trigger (Fig. 11, col. 11, lines 12-38).

9. As per dependent claims 38, 44, Srivastava teaches the claimed, exposing the invocation context comprises exposing at least one of: a client's connection context, a command with a state execution context, a transaction context associated with a command, a path through which requests and results may be sent or received between a client and database server, a trigger context, where the trigger results from an operation of the client, or a forward-only cursor on top of statement execution results (Fig. 11, col. 11, lines 12-38).

10. Claims 33, 39 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srivastava (US Patent 6,735,598) hereinafter Srivastava, in view of Stawikowski (US Patent 7,159,007) hereinafter Stawikowski, in view of Pandya (US Patent 7,376,755) hereinafter Pandya and in view of Woodring (US Patent 7,020,660) hereinafter Woodring.

11. As per dependent claims 33, 39 and 45, Srivastava, Stawikowski and Pandya do not explicitly teach using ADO. However, Woodring teaches the claimed, the client

comprises a .NET application and the in-process provider is an ADO.net in-process provider (Fig. 3, col. 3, lines 49-56). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Harris' teachings would have allowed Srivastava's method to eliminate the application software code customization based on a low level DBMS application programming interface (API) and the specific DBMS being accessed. (col. 1, lines 28-31).

Response to Arguments

12. Applicant's arguments filed 9/24/2010 have been fully considered but they are not persuasive and details are:

a) Applicant's argument stated as "Documents for 6 thru 8 were included in the previous IDS/NPL submission."

In response to Applicant argument, Examiner considered the IDS and every listed item has been initialed. The signed IDS document is attached with this Office Action.

b) Applicant's argument stated regarding claims 31 and 37 objection as "Applicants request withdrawal of the objections."

In response to Applicant argument, Examiner considered the amendment and the claims objection has been withdrawn.

c) Applicant's argument stated as "The drawings have not been affirmatively accepted in any of the office actions thus far. Applicants respectfully request that the Examiner affirmatively accept the drawings."

In response to Applicant argument, examiner never objected drawings and so far Applicant did not submit revised/version drawings. Examiners normally do not write item by item in the specification or the drawings when they are not defective.

d) Applicant's argument regarding claims 31, 37 and 43 rejection using prior art stated as "Nowhere does Srivastava teach an in-process provider much less an in-process provider exposing a context class to a database server, and/or an in-process provider that keeps track of unmanaged data that is referenced from a managed space and prevents access of the unmanaged data outside a managed execution frame."

In response to Applicant argument, examiner respectfully disagrees. Because Srivastava do teach this limitation as "the database system of the preferred embodiment maintains a cache in the main memory of the computer system upon which the database system is running, and once code in BLOB 1127 has been invoked, BLOB 1127 is copied to the cache, where it remains as long as it is being invoked with sufficient frequency that the cache management system does not remove it from the cache" at Fig. 11, col. 11, lines 33-39.

e) Applicant's further argument regarding claims 31, 37 and 43 rejection of the limitation dealing with client context using prior art stated as "Pandya does not teach this feature either."

In response to Applicant argument, again examiner respectfully disagrees. Because Pandya teaches connection, trigger and transaction context of the client (user) as "FIG. 34 illustrates the data flow inside the IP processor of this invention for one of the R2T PDUs and the following write data of the write transaction illustrated in FIG. 33. The initiator receives the R2T packet through its network media interface. The packet passes through all the stages, blocks 3401, 3402, 3403, and 3404 with detailed major steps in corresponding blocks 3415, 3416, 3409 and 3410, similar to the READ PDU in FIG. 32 including Receive, Security, Classification, Schedule, and Execution. Security processing is not illustrated in this figure. Following these stages the R2T triggers the write data fetch using the DMA stage shown in FIG. 34, blocks 3405 and 3411. The write data is then segmented and put in TCP/IP packets through the execution stage, blocks 3406 and 3412. The TCP and storage session DB entries are updated for the WRITE command with the data transferred in response to the R2T. The packet is then queued to the output queue controller. Depending on the security agreement for the connection, the packet may enter the security pipe stage, block 3407 and 3413. Once the packet has been encrypted and message authentication codes generated, the packet is queued to the network media interface for the transmission to the destination. During this stage, block 3408

and 3414 the packet is encapsulated in the Layer 2 headers, if not already done so by the packet processor and is transmitted. The steps followed in each stage of the pipeline are similar to that of the READ PDU pipe stages above, with additional stages for the write data packet stage, which is illustrated in this figure. The specific operations performed in each stage depend on the type of the command, the state of the session, the command state and various other configurations for policies that may be setup, at Fig. 34, col. 33, line 55 to col. 34, line 18.

f) Applicant's argument regarding dependent claims 33, 39, 45 rejection using the prior art stated as "Applicants concede that Woodring teaches ADO. However, Woodring does not teach ADO.net, a distinct difference from ADO."

In response to Applicant argument, examiner respectfully disagrees. Because Woodring teaches ADO, the same has been agreed by Applicant. Examiner agrees that ADO.NET is a newer version of ADO. When a program can be implemented using ADO, the ADO. NET can be used to implement the same program. ADO. NET is not essential to implement the same program.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (571) 272-4115. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sathyanarayan Pannala/
Primary Examiner, Art Unit 2164

srp
March 18, 2010